

Pharmacist-Physician Collaborative Medication Therapy Management Services (MTMS) RCI Demonstration Project

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UC San Diego
SKAGGS SCHOOL OF PHARMACY
AND PHARMACEUTICAL SCIENCES



Key Personnel - UCSD

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Co-Investigator

MTMS Clinician

MTMS Clinician



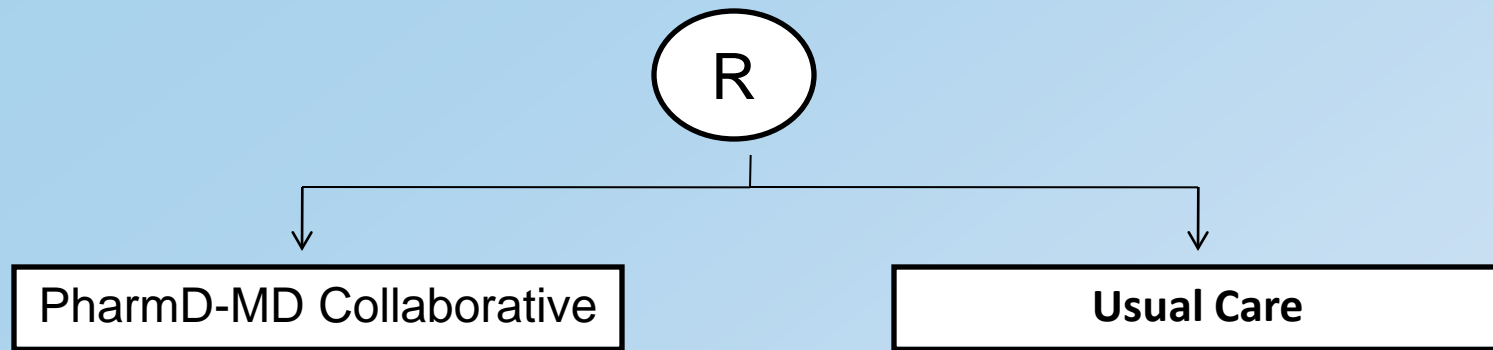
Patients

Inclusion criteria:

Age 18 or over

1. Diagnosis of hypertension with most recent BP $\geq 140/90$ mmHg (ICD9code 401.xx) or BP $\geq 130/80$ mmHg if patient also has diabetes
2. Currently treated with at least one anti-hypertensive medication
3. Continuous active patient of the clinic for at least the past 6 months
4. English speaking and able to complete questionnaires in English





- Internal Medicine Group – UCSD
- Registry to identify HTN patients “not at goal” (n=90 per group)
 - >140/90 (or >130/80 with diabetes)
- PharmD (residency trained) two ½ day sessions per week
- Collaborative Practice Protocol – pharmacist a separate visit
- MTMS activities:
 - drug therapy initiation and monitoring
 - medication dosage adjustments
 - physical assessment (BP, height, weight)
 - laboratory test review/order
 - patient education
- Clinic visits and follow-up phone calls
 - Limited time period for intensive medication management

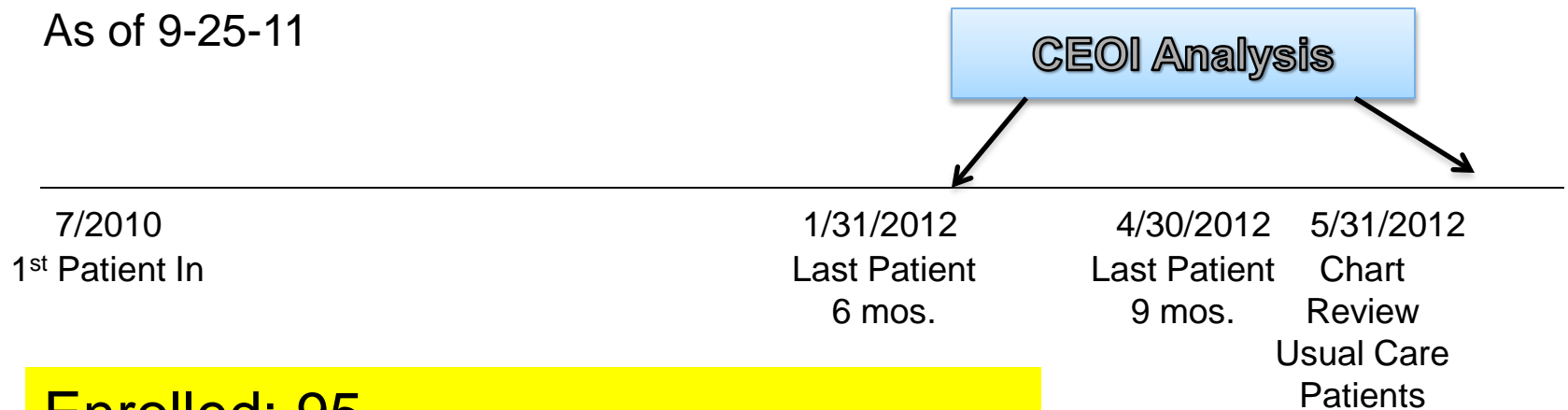


Specific Aims

1. Compare change in systolic and diastolic blood pressure between groups at 6 and 9 months.
2. Evaluate MTMS model
 - a. number and type of medication changes
 - b. number and type of drug therapy problems identified and resolved
 - c. patient satisfaction
 - d. medication and medical resource utilization
 - e. return on investment (ROI)
3. Explore possible markers to target patients most likely to have high benefit vs. cost ratio for future pharmacist MTMS.
4. Interpret clinical, economic and humanistic outcomes from 3 stakeholder perspectives (Medical Group, Health Plan, Patient).
 - a. Stakeholder Interpretation Group

Timeline

As of 9-25-11



Enrolled: 95

- 95 initial visit
- 47 (50%) initial visit + 6 month follow-up
- 41 (43%) initial visit + 9 month follow-up

13: Lost to FU, disenrolled or withdrew

Patient Descriptors (n=95)

Male % (n)	48% (46)
Age mean (SD) range	65.2 (11.9) 33 - 90
Number of Medications (all prescriptions) % (n)*	
4 or less	21.6% (16)
5 to 9	33.8% (25)
10 or greater	44.6% (33)
Range	1 - 21
Medication Regimen Complexity ¹ % (n) ⁺	
(dosage form, frequency, directions)	
10 or less	31.2% (24)
11 to 19	32.5% (25)
20 or greater	36.4% (28)
Range	2 - 54.5
Ref. Points; patients with Uncontrolled	
HTN 18 (2-50)	
Diabetes 20.5 (4-72.5)	

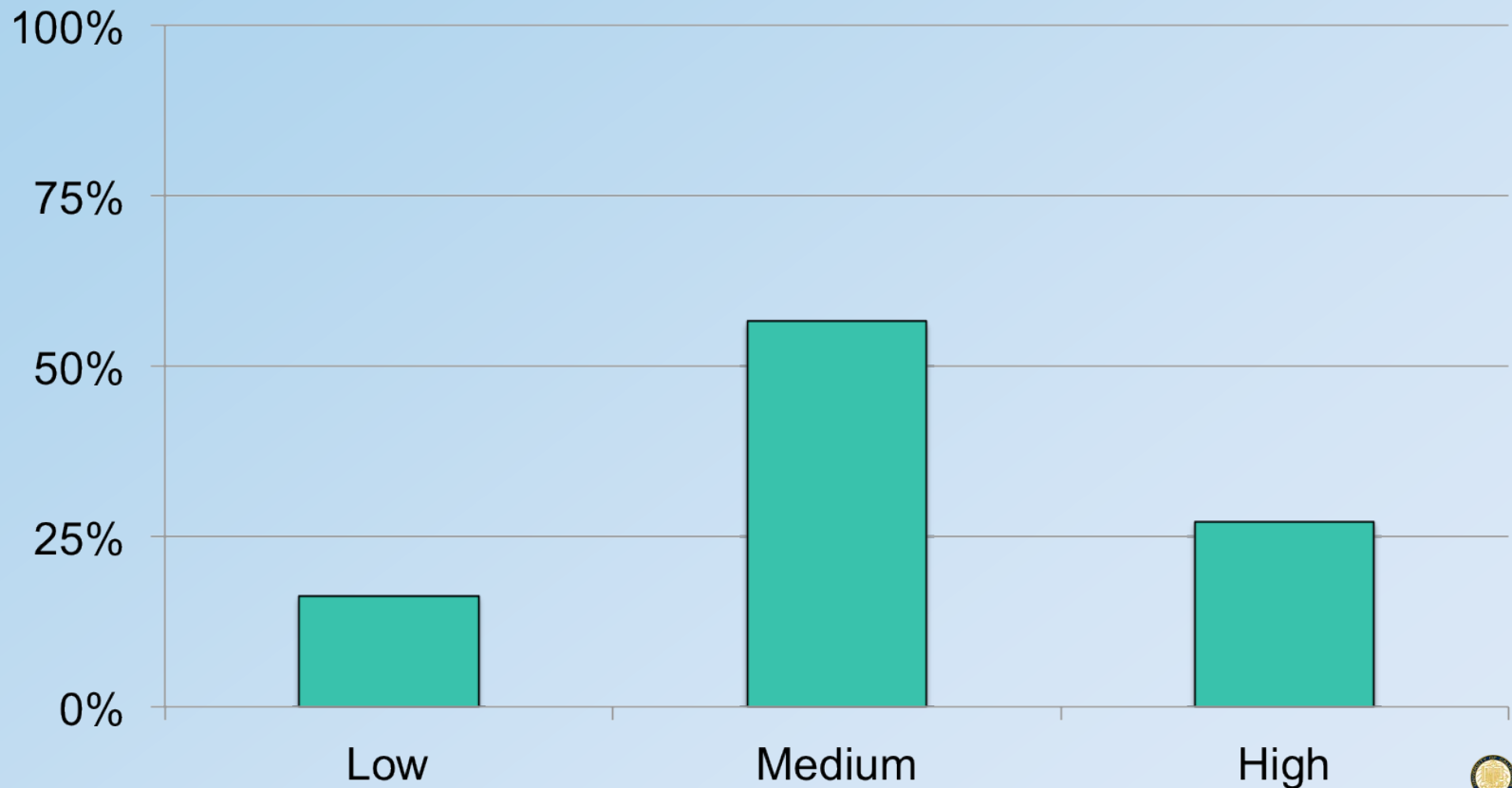
* n=74, + n=77

¹ George J et al., Ann Pharmacother: 2004;38:1369-76.

Actions (n=95)

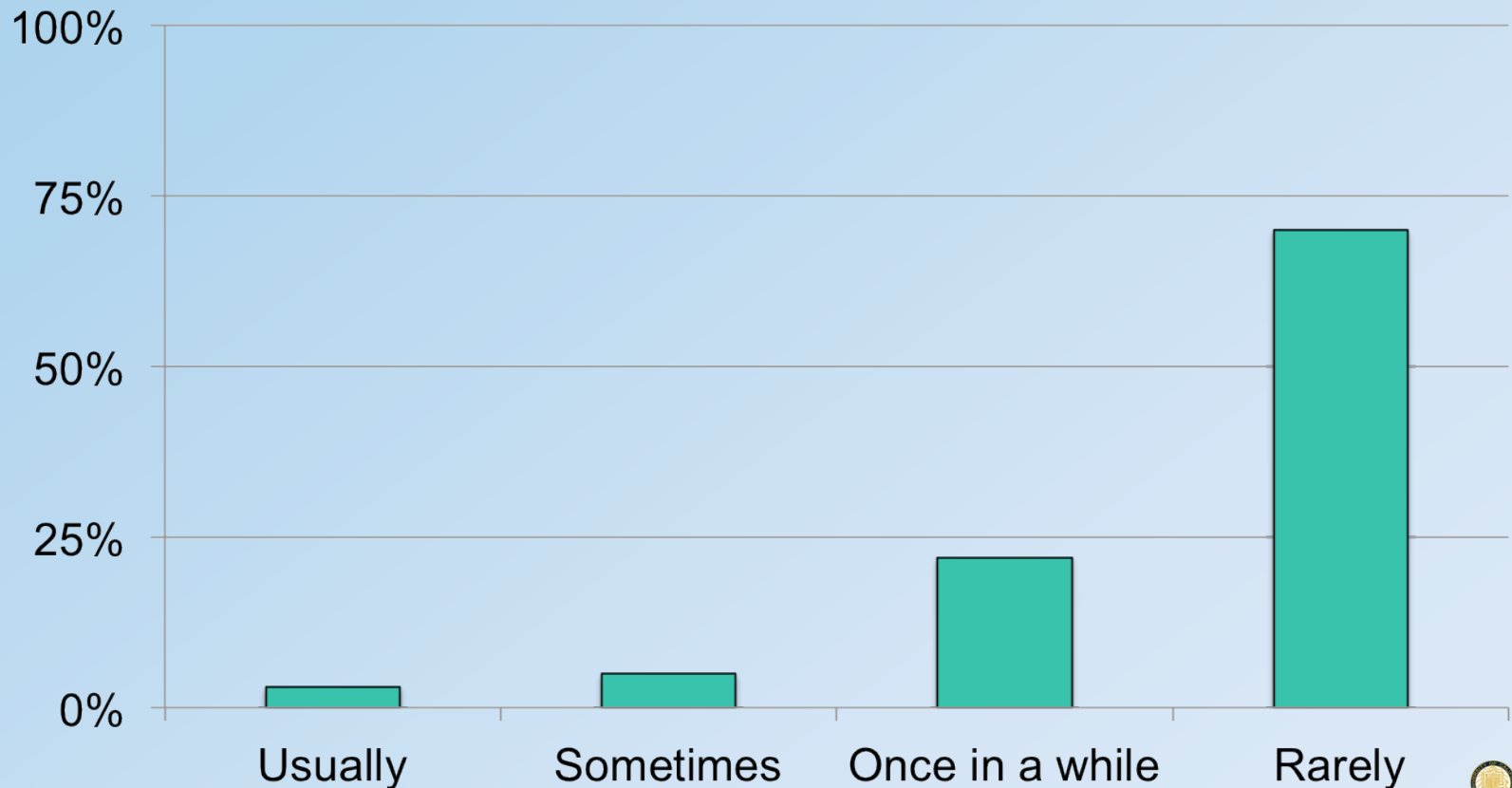
Patients with a drug therapy problem identified % (n)	46.3% (44)
Type of drug therapy problem % (n) of 48 problems	
Need for additional therapy	41.7% (20)
Drug dose too low	25.0% (12)
Non-adherence to therapy	18.8% (9)
Adverse drug reaction	8.0% (4)
Patients with a <i>medication change</i> at initial visit % (n)	34.7% (33)
Patients with type of change made % (n) of 21 w/ change	
Added Medication	30.6% (11)
Increased Dose	44.4% (16)
Decreased Dose	11.1% (4)
Changed Medication	11.1% (4)

Medication Adherence Level



Morisky 8 item n=95

How often do you have difficulty remembering to take all your medications ?



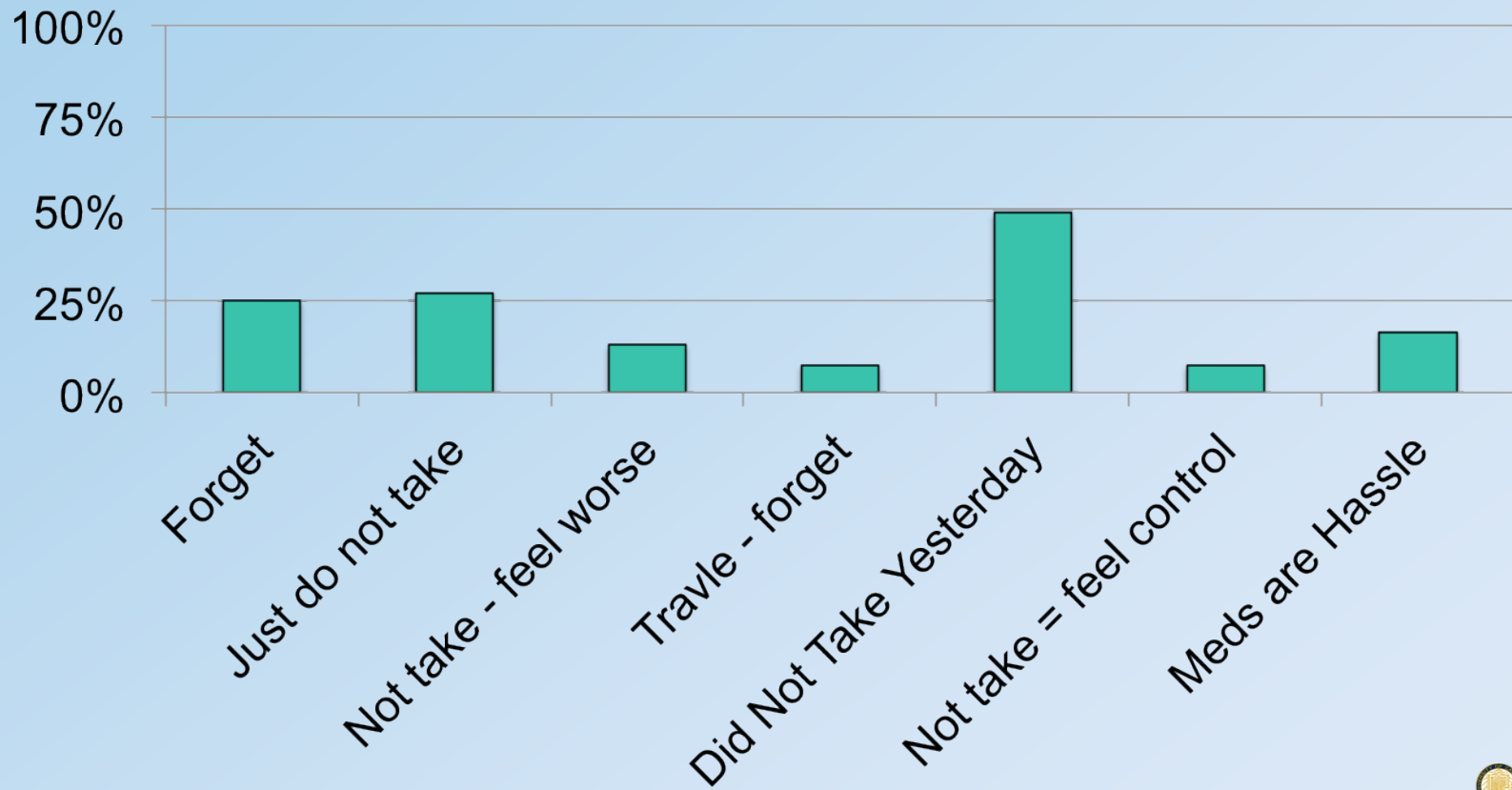
Morisky 8 item (question #8) n=67



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Adherence problems – patients low to moderate adherence level



Morisky 8 item (questions 1 – 7) n=67

“Outcomes” so far...

- First data analysis Winter 2012
- New provider in the practice
 - Logistics (e.g. Scheduling, Staff training)
 - Acceptance (patients from 10 of 10 MDs)
- Patients – What is MTM? What is benefit MTM?
- Electronic Medical Record
 - PharmD documentation template - created
 - Expanding other MTM clinics @ UCSD
 - Some variables not easily retrieved electronically

Questions?